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Specially Appearing for Protestant Environmental Council of Sacramento for Purposes of Presenting Part 2 Testimony

BEFORE THE

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

HEARING IN THE MATTER OF CALIFORNIA DEPARTMENT OF WATER RESOURCES AND UNITED STATES BUREAU OF RECLAMATION REQUEST FOR A CHANGE IN POINT OF DIVERSION FOR CALIFORNIA WATER FIX	**TESTIMONY OF ROBERT BURNESS** **ENVIRONMENTAL COUNCIL OF SACRAMENTO**

I. PROFESSIONAL BACKGROUND AND APPROACH TO ANALYSIS

I am Robert Burness, representing both Friends of Stone Lakes National Wildlife Refuge ("Friends of Stone Lakes NWR") and the Environmental Council of Sacramento. I wish to address you from the perspective of 40 year's work to protect and conserve the wetlands, vernal pools and agricultural lands of Sacramento County. Graduating with a B.S. in Biological Sciences from UC Davis, I was the lead preparer, 1973–74, of the Cosumnes River Basin Resources Study by Jones and Stokes Associates and VTN for Sacramento County. I worked for almost 30 years with the Sacramento County Planning Department, among other things overseeing vernal pool studies, evaluating growth constraints, and developing open space and conservation policies for the 1993 County General Plan. For the last 10 years I have volunteered as Chair of the Friends of Stone Lakes NWR Conservation Committee and Co-Chair of Habitat 2020, the conservation arm of the Environmental Council of Sacramento. (See also ECOS-2, Statement of Qualifications). A primary focus of our efforts has been to foster the protection of natural and working habitats beyond the Sacramento urban area while confronting projects that significantly threaten those habitats. I also helped initiate and participated in working group meetings with the California Department of Water Resources ("DWR") and its consultant, ICF International, in 2012–14 to help make improvements to the habitat protection measures of the Bay Delta Conservation Plan ("BDCP"), especially as they relate to threatened species in and around the Stone Lakes NWR.

II. IMPACTS FROM PETITIONED PROJECT WOULD BE CONTRARY TO THE PUBLIC INTEREST

A. Importance of Habitat Lands in South Sacramento County

Over the last 30 years, the importance of South Sacramento County's habitats has gained increasing recognition. These habitats include permanent and seasonal wetland, valley grassland (often with associated vernal pools), mixed riparian woodland (often with magnificent valley oaks), agricultural cropland, and to the east, blue oak woodland. ECOS-3 (2017 Draft South Sacramento Habitat Conservation Plan ("SSHCP"), Figure 3-38; see also SOSC-14 [SSHCP, Chapters 1, 3, & 7]), shows the habitat cover types in the western portion of

Sacramento County that would be most directly impacted by the Delta Tunnels project. Note the significant acreage of grassland habitat, some of it with vernal pools, intermixed with mixed riparian woodland and often adjacent to or surrounding permanent and seasonal wetlands. Together these habitat cover types are depicted as green to dark green and blue on the map and they form two axes, one along the Cosumnes River and the other in the Stone Lakes area along Interstate 5. Between these two axes of mixed habitat types there remain large acreages of cropland (light yellow on the map).

Add to this well intermixed habitat the wide floodplain in the lower reach of the mostly undammed Cosumnes River and you have conditions for supporting a wide variety of species, particularly waterfowl migrating along the Pacific Flyway. They not only have good roost options, but nearby cropland and grassland, occasionally flushed with seasonal flooding, provide vital foraging area. There exists also a unique opportunity to restore some floodplain lands to approximate their original habitat value.

In addition, the California Department of Fish and Wildlife ("CDFW") has identified the area to the east of the proposed North Delta Intakes as part of an important wildlife corridor. The California Essential Habitat Connectivity Project webpage states:

> The California Department of Fish and Wildlife and the California Department of Transportation (CalTrans) commissioned a team of consultants to produce a statewide assessment of essential habitat connectivity by February of 2010, using the best available science, data sets, spatial analyses and modeling techniques.
>
> The goal was to identify large remaining blocks of intact habitat or natural landscape and model linkages between them that need to be maintained, particularly as corridors for wildlife.

(Available at: https://www.wildlife.ca.gov/Data/BIOS.)

The connectivity map prepared by CDFW (ECOS-8) that resulted from this effort shows that the Sacramento River is an important corridor for wildlife movement between some of these "remaining blocks." This corridor allows wildlife to move through areas constrained by urbanization in Sacramento County. The substantial disruption to the continuity of this important north south connection caused by the Delta Tunnels project would be substantial from the removal of riparian habitat along the river for the intakes. As local wildlife attempts to

respond to the effects of climate change, the importance of this corridor will be amplified for species seeking cooler northern climes. (See ECOS-8, Map of North Delta Essential Connectivity Areas.)

The importance of these habitats in South Sacramento County has led to several initiatives to protect and manage important resource lands to enhance wildlife values and protect listed species. The Nature Conservancy initiated a project to protect the unique habitat in the lower Cosumnes River with the purchase of 1,500 acres that led to the official creation of the Cosumnes River Preserve in 1987. Since then Ducks Unlimited, the U.S. Bureau of Land Management, CDFW, Sacramento County and DWR have joined as partners to protect over 50,000 acres of wildlife habitat and agricultural lands along the river. (See also ECOS-6 [SSHCP, Figure 7-4], which identifies preserve lands in the western part of the Cosumnes River Preserve; see also SOSC-14.)

Yet years of agricultural and urban groundwater pumping have drawn down the aquifer north of the Cosumnes River to the point where the river is no longer connected to the aquifer beneath it and the Cosumnes dries up in late summer and early fall. Led by the Cosumnes Coalition, efforts are underway to develop innovative projects to augment recharge, return base flows to the river, and ultimately restore salmon spawning. (ECOS-4, Cosumnes River Provides Model for Floodplain Restoration in California by Michelaina Johnson; see also ECOS-9, SCRSD Recharge Project.)

The U.S. Fish and Wildlife Service established Stone Lakes NWR in 1994 to protect the wetlands associated with Upper and Lower Stone Lakes and their surrounding habitat. The U.S. Fish and Wildlife Service manages 6,500 acres of protected land within the refuge boundary. This acreage is delineated in the central part of the connectivity map. (See ECOS-8). Together, Stone Lakes and the Cosumnes River Preserve represent a significant investment of public funds.

Finally, the South Sacramento Habitat Conservation Plan ("SSHCP"), 23 years in the making, is nearing the final stages of approval. (See SOSC-14.) The SSHCP is divided into eight preserve Planning Units ("PPU's"), each of which focuses on protecting specific covered

species. PPU-6 extends westward from the eastern boundary of Galt to the Sacramento River and encompasses the Delta Tunnels intakes, forebay, new transmission lines and tunnel route southward to the Sacramento County line. The Greater Sandhill Crane and Swainson's Hawk are a primary focus of protection efforts in PPU-6. The SSHCP calls for approximately 9,750 acres to be reserved in PPU-6. Successful implementation of this plan will complete a longstanding goal of conservation advocates to secure sufficient wetlands, riparian forest and upland foraging habitat to provide a vital refugium for listed species and migratory birds. That this conservation project is hard up against the third most populated urban area in the state would make this an all the more remarkable accomplishment.

B. Concerns about the Delta Tunnels in the Context of Regional Conservation

You will hear from others about the impacts that the Delta Tunnels would have on both aquatic and terrestrial species. I would like to address two additional concerns that have received much less attention during these proceedings: Aquifer impacts and truck traffic impacts.

Groundwater Aquifer Impacts

I have spent decades working to reduce negative environmental impacts of projects in the ecologically critical Cosumnes watershed. These projects usually directly damage habitat or encroach and fragment habitat and reduce its value. However, an equally destructive impact on the Cosumnes and Stone Lakes NWR has been the consistent decline in the water table due to groundwater mining in South Sacramento and Elk Grove for drinking and agricultural water. The decline is so severe that you can see the cones of depression on regional maps. (ECOS-7, Figure 3-1, Spring 2003 Groundwater Elevation Contours, from Section 3 of the February 2005 Sacramento County Water Agency Zone 40 Water Supply Master Plan [Excerpt of DWR-804].)

Assessments show how those cones are taking water out of the local streams and rivers, making them lose surface water to the groundwater, instead of being recharged as they were historically. The FEIR/S indicates that groundwater levels will drop no more than five feet due to lower flows in the Sacramento River resulting from diversions of water into the tunnels.

(SWRCB-102, FEIR/S; see also SWRCB-108, p. 65.) These losses shrink our wetlands and reduce flow for salmon on the Cosumnes. When the streams become disconnected from the groundwater at a certain point the river does not run and the wetland plants and trees lose their water. These same maps show that the Sacramento River could already be at risk, and the Cosumnes is in peril. (ECOS-7.) That disconnection is not visible to the naked eye: the plants just get stressed and during droughts, when the water table gets even lower, they decline and eventually die. That cutoff seems to be around 20 feet below the surface. (ECOS-9, SCRSD Recharge Project, pp. 18-19.)

This connection to the river happens in the shallow aquifer. This is the same aquifer that I have read testimony would be cut off with walls or pumped down by reductions in river stage caused by the project. (See LAND-35 Errata.) Dr. Steffen Mehl testified for the Sacramento County Water Agency during Part 1 of the hearings. In his initial testimony (SCWA-4) he explained why the groundwater modeling used by Petitioners was inadequate. In his sur-rebuttal testimony (SCWA-200), he performed a qualitative analysis of stream loss effects using Alternative 1B that demonstrated a potential adverse effect on stream loss to the South American Subbasin during CWF operations. As part of that analysis, he indicated that maximum differences in the river's hydraulic head could be up to 40 feet. (SCWA-200.)

This raises question of whether reduced groundwater recharge from the river could over time substantively alter the contours of the Elk Grove cone of depression, potentially undercutting efforts to recharge the groundwater basin and restore riparian habitat in the lower Cosumnes River. (See ECOS-9.) My concern is that those actions will make the existing groundwater problems even worse for the wetlands, their birds and their trees. The same problems for the ecosystem would happen if the Sacramento River level starts dropping, as that is the water that is sustaining those habitats now and if they get worse would significantly harm the critical regional conservation efforts we have spent so much time and energy protecting.

We submit that this would constitute an additional unreasonable impact and be contrary to the public interest. The State Water Board should require additional analysis to fully

understand the effects of the new diversions on reduced groundwater recharge from the river before approving any of the requested permit modifications.

Truck Traffic

The construction of the intake structures, forebay and tunnels would occur over a 12-year estimated construction period (LAND-207, MWD Program Schedule, July 2017). The BDCP Construction Traffic Impact Analysis Administrative Draft Report (January 2016) quantifies the hourly trip volumes for roadway segments throughout the Delta. Appendix 19A, Attachment E of the 2016 FEIR/S presents graphs depicting these traffic levels. (SWRCB-102.) The fact that the difference between baseline traffic and project plus baseline traffic for all segments remains constant throughout the day (6 a.m. to 7 p.m.) leads to the conclusion that the vehicles will be trucks. The table reveals that the project will generate constant hourly increases in traffic on Sacramento and Yolo County Road segments at four threshold levels:

620 trucks/hr	10.3 trucks/min	one truck every 5 seconds
405-10 trucks/hr	6.8 trucks/min	one truck every 9 seconds
230 trucks/hr	3.8 trucks/min	one truck every 16 seconds
110-20 trucks/hr	1.8 trucks/min	one truck every 30 seconds
45 trucks/hr	0.8 trucks/min	one truck every 80 seconds

The figure provided in ECOS-10 identifies those roadway segments in Sacramento County and immediately adjacent counties by the above threshold levels. (See also LAND-122, FEIR/S, Figure 19-2a.)

To put those numbers in perspective, consider how this would impact Hood-Franklin Road, along which is located the visitor center for the Stone Lakes NWR. In 2014, the annual average daily traffic along Hood-Franklin Road was 2,137 vehicles, of which just 27 or 1.3% were four or five plus axle trucks. (See also DWR-573, p. 165 [2014 Annual Average Daily Truck Traffic on the California State Highway System]). Hood-Franklin is in the highest category of projected truck traffic for the Delta Tunnels project (620 vehicles/hour). Conservatively assuming that 80% of the hourly projected traffic for Hood-Franklin comprises 4

and 5 axle trucks, the average daily truck traffic over the 13 hours of project operation rises to 6,448, and the percentage of big rig traffic along that road will rise from 1.3% to 63.5%.

We have not been able to identify the number of anticipated days that truck traffic would approach the above volumes. We requested that information during the CEQA/NEPA review process but it was not provided (SWRCB-102, FEIR/S Comments and Responses to Comments, Comment letter 1562, p. 20). Lacking any information to the contrary, we must conclude that roadway segments will sustain volumes approximating the above levels for a substantial portion of the 12-year construction period.

Roads with high traffic volumes reduce landscape connectivity, which affect wildlife populations in the following ways:

1. Roads and traffic limit the regular movement of animals to different habitats (e.g., wetland to grassland) to meet daily, seasonal, and basic biological needs such as reproduction, feeding and sheltering.
2. Roads and traffic affect use of habitats adjacent to roadways with some species having a higher degree of aversion to traffic and associated noise.
3. Roads and traffic limit the ability for areas to be recolonized, and ability of young to find and establish new territories.
4. Roads and traffic increase wildlife mortality due to collisions, which can affect reproduction success. At sufficiently high rates of mortality, areas become population sinks, which can then negatively affect regional populations.

The visitor experience at Stone Lakes NWR would also be impacted by the high volume of truck traffic on Hood Franklin Road. In 2010, the U.S. Fish and Wildlife Service constructed a visitor station behind the office on Hood Franklin Road. This area is now used by over 30,000 visitors annually that come for a quiet experience to explore the restored wetlands, riparian and grassland habitats and associated wildlife. Over 2,000 school children also visit this area to experience nature and take part in the Refuge's environmental education programs with hands on learning.

The Project lead agencies have focused their mitigation on those roadway segments that would exceed Level of Service C, with scant attention to the significant increase of truck traffic on rural roadways. Transportation Mitigation Measure 1a requires Delta Tunnels proponents to develop traffic management plans, which address steps to mitigate traffic impacts on wildlife and on local residents. (SWRCB-111, MMRP, pp. 2-86 to 2-94.) The measure includes a laundry list of potential traffic mitigation measures, including some addressed specifically to Stone Lakes NWR in response to Friends' comments. (SWRCB-102, FEIR/S, pp. 19-281.)

This measure notwithstanding, the fact remains that whatever traffic mitigation does come out of the Transportation Management Plan process, even if fully enforced, would still not significantly mitigate the impact of up to 10 semi-tractor trailer trucks every minute travelling down the rural roads of the North Delta and Sacramento and adjacent counties—all day, day in and day out, for many, many months on end. The magnitude of heavy duty truck traffic is an additional consideration among the many unreasonable impacts of the Delta Tunnels project on wildlife.

C. Ensuring Implementation of Environmental Commitments

During the above-mentioned meetings between DWR, ICF International, Friends of Stone Lakes NWR and Environmental Council of Sacramento, we reached agreement regarding several specific conservation measures applicable to Greater Sandhill Cranes. Some of these measures are included in the current Delta Tunnels project Alternative 4A in Tables 5-1 and 5-2 of the Mitigation Monitoring and Reporting Program ("MMRP") document of the FEIR/S (SWRCB-102, FEIR/S, pp. 5-1 to 5-5). (See also SWRCB-111.) Implementation of these measures is particularly important to us, but they are just one part of a much larger conservation commitment associated with Petitioners' request.

Altogether, the Environmental Commitments represent a significant effort to protect 13,340 acres and restore 2,496 acres. It is important to recognize that these commitments substitute for specific mitigation requirements that would otherwise be applicable in their absence. There are no mitigation measures for the loss of listed species habitat in the FEIR/S.

Instead, using loss of Greater Sandhill Crane foraging habitat as an example, the CEQA conclusion is:

> The effects on greater sandhill crane habitat under Alternative 4A would represent an adverse effect as a result of habitat modification of a special-status species in the absence of other Environmental Commitments, Resource Restoration and Performance Principles GSC1-GSC4, and AMMs. However, the project proponents have committed to habitat protection, restoration, management, and enhancement associated with Environmental Commitment 3 and Environmental Commitment 10 that are greater than the mitigation ratios described above…. Therefore, Alternative 4A would have a less-than-significant impact on greater sandhill cranes under CEQA.

(SWRCB-102, FEIR/S, p. 12-3539.) Put simply, the Environmental Commitments represented in Tables 5-1 and 5-2 of the document are *the* mitigation for habitat loss associated with the project.

To my knowledge DWR has provided no information as to how and when the habitat mitigation commitments will be met. The accompanying text to Tables 5-1 and 5-2 in the MMRP provides only that DWR will prepare a management plan for each listed species habitat restoration and protection site. (SWRCB-102, FEIR/S, p. 5-5.) These plans would presumably not be triggered until each of the required sites has been secured for restoration.

The extent of the commitment is even vague. Table 5-1 sets upper limits only for restoration commitments (up to 251 acres of Riparian Natural Community Restoration, for example). There is no minimum commitment—zero acres of riparian habitat restored could be argued to be consistent with the commitment as written.

Also, the project encompasses the entire Delta, yet the primary habitat impacts are relatively restricted to the North Delta, the Franks Tract area and in proximity to the tunnel alignment. There are no assurances that project mitigation will occur where the impact is greatest. Also with no BDCP, there is no requirement that the mitigation occur in the Project Area. (SWRCB-102, FEIR/S, p. 3-58.) This is of particular concern to those of us who have worked hard to protect habitat in the Sacramento Region. We seek assurances that the environmental commitments will be met in proximity to the areas subject to habitat loss, and without the arbitrary constraint of the Delta boundary.

I have every reason to believe that there will be substantial resistance to fulfilling these commitments. The costs of this acquisition and restoration commitment will be substantial. There is already substantial resistance to paying for the tunnels themselves and DWR is looking at ways to scale back and change the project. (See LAND-125 ["If Jerry Brown can't sell California on two Delta tunnels, would just one fly?", Dale Kasler, Sacramento Bee, November 7, 2017].) Failure to follow through with implementing the resource protection and restoration commitment of the project would result in more than an unreasonable impact associated with the State Board's approval of the Petition. It would be a breach of faith in the public trust that large public projects will responsibly mitigate their quite significant impacts.

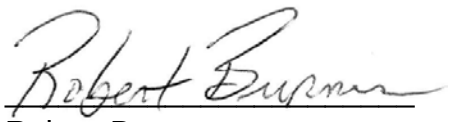
We urge that, if the Board approves the Petitioners' request, the Board do so only with conditions that obligate Petitioners to:

1. Mitigate to the full extent the acreage commitments in Tables 5-1 and 5-2 of the MMRP (SWRCB-111);
2. Develop within 18 months, in consultation with state, federal and other wildlife management entities, an implementation plan that identifies priority areas and timelines for acquiring fee title/easements and for restoration;
3. Provide habitat protection and restoration in proximity to the location of the impact;
4. Complete acquisition no later than 10 years and restoration projects no later than 20 years from the date of Board approval; and
5. Establish and meet interim progress benchmarks.

Even if these conditions were imposed, however, the project would not be in the public interest due to its unreasonable impacts on fish and wildlife.

* * *

Executed on the 30th day of November, 2017, at Sacramento, California



Robert Burness

REFERENCES

Figure 3-38, Preserve Planning Unit 6, from Chapter 3 of the February 2017 Draft South Sacramento Habitat Conservation Plan [ECOS-3]

Johnson, Michelaina. 2017. Cosumnes River Provides Model for Floodplain Restoration in California. News Deeply/Water Deeply [ECOS-4]

County of Sacramento et al. Draft South Sacramento Habitat Conservation Plan, Chapters 1, 3 and 7. February 2017 [SOSC-14]

Figure 7-4, Existing Preserve and SSHCP Planned Hardline Reserves, from Chapter 7 of the February 2017 Draft South Sacramento Habitat Conservation Plan [ECOS-6]

Figure 3-1, Spring 2003 Groundwater Elevation Contours, from Section 3 of the February 2005 Sacramento County Water Agency Zone 40 Water Supply Master Plan. (Excerpt of DWR-804) [ECOS-7]

CDFW, Map of North Delta Essential Connectivity Areas [ECOS-8]

SCRSD, South Sacramento County Agriculture and Habitat Lands Recycled Water, Groundwater Storage, and Conjunctive Use Program: Conceptual Ecological Plan & Ecosystem Benefits. 2017 [ECOS-9]

Map of Roadway Segments in the North Delta Identifying Truck Volume per Minute for Delta Tunnels Project Construction (FEIR/S, Fig. 19-2a) [ECOS-10]